



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,602	01/16/2004	Michael Ainley	50,476A	9876
25212	7590	12/19/2005	EXAMINER	
DOW AGROSCIENCES LLC 9330 ZIONSVILLE RD INDIANAPOLIS, IN 46268			BAUM, STUART F	
			ART UNIT	PAPER NUMBER
			1638	
DATE MAILED: 12/19/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/759,602	<b>Applicant(s)</b> AINLEY ET AL.	
	<b>Examiner</b> Stuart F. Baum	<b>Art Unit</b> 1638	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 1/16/2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-43 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claim 1, drawn to an isolated DNA molecule from the *per5* promoter comprising nucleotides 4086-4148 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.
  - II. Claim 1, drawn to an isolated DNA molecule from the *per5* promoter comprising nucleotides 4086-4200 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.
  - III. Claim 1, drawn to an isolated DNA molecule from the *per5* promoter comprising nucleotides 4086-4215 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.
  - IV. Claims 1, 20 and 31, drawn to an isolated DNA molecule from the *per5* promoter comprising nucleotides 3187-4148 of SEQ ID NO:1, and DNA construct and plasmid comprising said DNA molecule, classified in class 536, subclass 24.1 for example.
  - V. Claim 1, drawn to an isolated DNA molecule from the *per5* promoter comprising nucleotides 3187-4200 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.

Art Unit: 1638

- VI. Claim 1, drawn to an isolated DNA molecule from the *per5* promoter comprising nucleotides 3187-4215 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.
- VII. Claims 1, 21 and 32 drawn to an isolated DNA molecule from the *per5* promoter comprising nucleotides 2532-4148 of SEQ ID NO:1, and DNA construct and plasmid comprising said DNA molecule, classified in class 536, subclass 24.1 for example.
- VIII. Claim 1, drawn to an isolated DNA molecule from the *per5* promoter comprising nucleotides 2532-4200 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.
- IX. Claim 1, drawn to an isolated DNA molecule from the *per5* promoter comprising nucleotides 2532-4215 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.
- X. Claims 1, 22 and 33 drawn to an isolated DNA molecule from the *per5* promoter comprising nucleotides 1-4148 of SEQ ID NO:1, DNA construct and plasmid comprising said DNA molecule, classified in class 536, subclass 24.1 for example.
- XI. Claim 1, drawn to an isolated DNA molecule from the *per5* promoter comprising nucleotides 1-4200 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.

Art Unit: 1638

- XII. Claim 1, drawn to an isolated DNA molecule from the *per5* promoter comprising nucleotides 1-4215 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.
- XIII. Claim 2, drawn to an isolated DNA molecule from the *per5* intron comprising nucleotides 4426-5058 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.
- XIV. Claim 2, drawn to an isolated DNA molecule from the *per5* intron comprising nucleotides 4420-5064 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.
- XV. Claim 2, drawn to an isolated DNA molecule from the *per5* intron comprising nucleotides 5251-5382 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.
- XVI. Claim 2, drawn to an isolated DNA molecule from the *per5* intron comprising nucleotides 5245-5388 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.
- XVII. Claim 2, drawn to an isolated DNA molecule from the *per5* intron comprising nucleotides 5549-5649 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.
- XVIII. Claim 2, drawn to an isolated DNA molecule from the *per5* intron comprising nucleotides 5542-5654 of SEQ ID NO:1, classified in class 536, subclass 24.1 for example.

- XIX. Claim 3, drawn to an isolated DNA molecule comprising the *per5* transcription termination sequence comprising nucleotides 6068-6431 of SEQ ID NO:1, classified in class 536, subclass 23.1 for example.
- XX. Claim 4, drawn to a probe or primer comprising 20 nucleotides of SEQ ID NO:1, classified in class 536, subclass 24.33 for example.
- XXI. Claims 5-10, 34, 36, 38, 40-43, drawn to a recombinant gene cassette comprising an intron comprising nucleotides 4420-5064 of SEQ ID NO:1 and comprising a promoter comprising nucleotides 2532-4148 of SEQ ID NO:1; a plasmid, transformed plant, transformed seed, and method comprising said nucleotide sequence, classified in class 800, subclass 278 for example.
- XXII. Claims 5-9, 11, 34, 36, 38, 40-42, drawn to a recombinant gene cassette comprising an intron comprising nucleotides 4420-5064 of SEQ ID NO:1 and comprising a promoter comprising nucleotides 1-4148 of SEQ ID NO:1; a plasmid, transformed plant, transformed seed, and method comprising said nucleotide sequence, classified in class 800, subclass 278 for example.
- XXIII. Claims 5-9, 12, 34, 36, 38, 40-42, drawn to a recombinant gene cassette comprising an intron comprising nucleotides 4420-5064 of SEQ ID NO:1 and comprising the 3'UTR of *per5* comprising nucleotides 6068-6431 of SEQ ID NO:1; a plasmid, transformed plant, transformed seed, and method comprising said nucleotide sequence, classified in class 800, subclass 278 for example.

- XXIV. Claims 13-15, drawn to a recombinant gene cassette comprising a constitutive promoter, or wherein said promoter is a *per5* promoter comprising nucleotides 2532-4148 of SEQ ID NO:1, classified in class 435, subclass 320.1 for example.
- XXV. Claims 16-17, drawn to a recombinant gene cassette comprising the 3'UTR of *per5* comprising nucleotides 6068-6431 of SEQ ID NO:1 and comprising in part the *per5* promoter comprising nucleotides 2532-4148 of SEQ ID NO:1, classified in class 435, subclass 320.1 for example.
- XXVI. Claims 18, 23-24, 35, 37, 39, drawn to a DNA construct comprising a promoter comprising nucleotides 4086-4148 of SEQ ID NO:1 and comprising a 3'UTR comprising nucleotides 6066-6550 of SEQ ID NO:1; a plasmid, transformed plant and transformed seed comprising said construct, classified in class 435, subclass 320.1 for example.
- XXVII. Claim 19, drawn to a DNA construct comprising a promoter and untranslated leader sequence together comprise nucleotides 4086-4200 of SEQ ID NO:1, classified in class 435, subclass 320.1 for example.
- XXVIII. Claims 25-26, 28-30, drawn to a DNA construct comprising a promoter comprising nucleotides 4086-4148 of SEQ ID NO:1, an intron comprising nucleotides 4426-5058 of SEQ ID NO:1 and a 3'UTR comprising nucleotides 6067-6340 of SEQ ID NO:1, classified in class 435, subclass 320.1 for example.
- XXIX. Claims 25 and 27, drawn to a DNA construct comprising a promoter comprising nucleotides 4086-4148 of SEQ ID NO:1, an intron comprising nucleotides 4426-

5058 of SEQ ID NO:1 and a 3'UTR comprising nucleotides 6067-6439 of SEQ ID NO:1 classified in class 435, subclass 320.1 for example.

Claims 1-2, 5-9, 25, 34, 36, 38, and 40-42 are generic to the respective Groups and will be examined to the extent that they are drawn to the elected invention.

2. Inventions I-XX are unrelated to each other, as are Inventions XXI-XXVIII unrelated to each other. Applicant is reminded that nucleotide sequences encoding different proteins are structurally distinct chemical compounds and are unrelated to one another, as are different proteins structurally distinct chemical compounds and unrelated to one another. These sequences are thus deemed to normally constitute **independent and distinct** inventions within the meaning of 35 U.S.C. 121. Absent evidence to the contrary, each such sequence is presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq (see MPEP 803.04 and 2434). This requirement is not to be construed as a requirement for an election of species, since each nucleotide and amino acid sequence is not a member of a single genus of invention, but constitutes an independent and patentably distinct invention.

3. Inventions XXI, XIV and VII are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the presence of each of the subcombinations separately claimed serves as



Art Unit: 1638

evidence that the combinations do not rely solely upon any single subcombination as claimed for their own patentability. The subcombination has separate utility in any of the different combinations.

4. Inventions XXII, XIV and X are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the presence of each of the subcombinations separately claimed serves as evidence that the combinations do not rely solely upon any single subcombination as claimed for their own patentability. The subcombination has separate utility in any of the different combinations.

5. Inventions XXIII, XIV and XIX are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the presence of each of the subcombinations separately claimed serves as evidence that the combinations do not rely solely upon any single subcombination as claimed for their own patentability. The subcombination has separate utility in any of the different combinations.

Art Unit: 1638

6. Inventions XXV, XIX and VII are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the presence of each of the subcombinations separately claimed serves as evidence that the combinations do not rely solely upon any single subcombination as claimed for their own patentability. The subcombination has separate utility in any of the different combinations.

7. Inventions XXVIII, I and XIII are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the presence of each of the subcombinations separately claimed serves as evidence that the combinations do not rely solely upon any single subcombination as claimed for their own patentability. The subcombination has separate utility in any of the different combinations.

8. Inventions XIV, VII, X, XIX, and XIII, are related as subcombinations disclosed as usable in some combination as mentioned above. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, the above recited inventions have separate utility because they are being claimed separately. See MPEP § 806.05(d).

9. Inventions I-VI, VIII-IX, XI-XII, XV-XVIII, XX and XXI-XXIX are unrelated to each other because nucleotide sequences encoding different proteins are structurally distinct chemical compounds and are unrelated to one another, as are different proteins structurally distinct chemical compounds and unrelated to one another. These sequences are thus deemed to normally constitute **independent and distinct** inventions within the meaning of 35 U.S.C. 121. Absent evidence to the contrary, each such sequence is presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq (see MPEP 803.04 and 2434). This requirement is not to be construed as a requirement for an election of species, since each nucleotide and amino acid sequence is not a member of a single genus of invention, but constitutes an independent and patentably distinct invention.

10. Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by their different classification, and the literature and sequence searches required for each of the Groups are not required for another of the Groups, restriction for examination purposes as indicated is proper.

11. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

12. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

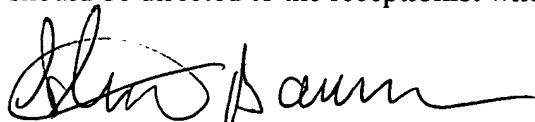
Art Unit: 1638

application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart F. Baum whose telephone number is 571-272-0792. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

A handwritten signature in black ink, appearing to read 'Stuart F. Baum', with a stylized flourish at the end.

Stuart F. Baum Ph.D.

Patent Examiner

Art Unit 1638

December 7, 2005